



AUTONOMOUS OFFSHORE BARRIER

KIETTA company has developed Unmanned Surface Vehicles. These USVs with their characteristics of tug boats were initially designed and used by the offshore oil & gas industry, for unmanned seismic surveys. The USVs maintain an immersed cable, several kilometres long, instrumented with acoustic sensors allowing the subsurface geology to be imaged.

Their dimensions (8.20m x 5.5m) and mass (21t) give them by design a large bollard pull capacity (3t) with 2 x 100kW motor and 2 azimuthal thrusters.

They have a high level of redundancy and operating safety, a capacity to operate 24/7 with an endurance of more than 40 days, their communication system allowing real-time transmission (data, videos, ...).

DESCRIPTION

USVs particular characteristics have led KIETTA company to diversify their uses, particularly in maritime security. By placing an anti-intrusion vessel barrier between 2 USVs, KIETTA offers an autonomous French solution to protect and control marine areas, using a large bollard pull capacity and maintaining the system in position by design (dynamic positioning).

This security barrier constitutes a visible and effective means of area protection against any unauthorized small boat intrusion. Tests carried out with the first "boat stop" demonstrated a resistance to a 17 knots boat crash.

Advantages:

- Autonomous anti-intrusion barrier (up to 1km) controlled from land
- Fast and accurate repositioning according to operational needs
- No mooring required / no impact on the seabed
- No personnel at sea
- Low consumption compared to a tug boat and high endurance
- Resistance of the barrier defined in design office
- Real-time surveillance of the area with mast cameras or tethered flying drone from the USVs

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GENERAL SPECIFICATIONS

Overall size: L x l x H	8.20 x 5.50 x 4 m (bottom keel to deck)
Mast height	5,8 m
Draft	2.4 m
Weight	21 tons
Autonomy	41 days (subject to use and sea conditions)
Power	2 x 80 kW diesel electric generators (2 x 4,5 m ³ fuel)
Propulsion	2 x thrusters azimuthaux
Bollard pull	3 tons
Sailing speed	Up to 5 knots
Compartment	3 (electronic room, engine room and thruster room)
Positioning	GNSS (PPP) with INS
Radio links	Iridium, 2.4 and 5 GHz, Satellite (depending on needs)
Others	Anemometer, NTP server, deck camera

CLIENT'S PAYLOAD OPTIONS

Deck	Winch, mast, power
Keel	Integrated compartment inside the keel